



## **23 0700 – HVAC (Duct and Piping) Insulation**

Page 1 of 1

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### A. General:

1. Elastomeric insulation required on all piping subject to sweating (chilled water, refrigerant, a/c condensate, roof drains) and is to be used in concealed spaces.
2. Provide piping and ductwork insulation thickness and thermal conductivity in conformance with the latest edition of ASHRAE 90.1.
3. Provide duct and pipe insulation continuous through walls, hangers, partitions, ceiling openings and sleeves.
4. Provide UL-approved assemblies for pipes and ducts passing through fire-rated floors, walls, or partitions as required.
5. Provide a continuous, unbroken, vapor seal on all cold pipe surfaces. Guides and anchors secured directly to cold surfaces shall be adequately insulated and vapor sealed to prevent condensation. Pipe Insulation shall run continuously through supports and hangers.
6. Provide ridged foam board insulation on all ductwork in mechanical rooms that require insulation.
7. Provide aluminum jackets, 0.016" thick, for exterior pipe and equipment insulation covers. For interior piping in mechanical rooms or exposed locations, provide aluminum jackets 0.016" thick or PVC jackets for all piping exposed in mechanical rooms. Locate seams on bottom side of horizontal pipe.
8. Encase pipe fittings insulation with one-piece pre-molded PVC fitting covers, fastened as per manufacturer's recommendations.
9. Provide bands, wires, cement, adhesives, sealers, and protective finishes as recommended by insulation manufacturer for applications indicated.
10. Provide flexible reusable insulation blankets for equipment requiring access such as pumps, strainers, etc.
11. Insulate valves, fittings and similar items in each piping system with equivalent thickness and composition of insulation as applied to adjoining pipe run. Install factory molded, precut units.

B. HVAC Piping System Omissions: Omit insulation on hot piping within radiation enclosures or unit cabinets; on cold piping within unit cabinets provided piping is located over drain pan; on heating piping beyond control valve, located within heated space; on condensate piping between steam trap and union; and on unions, flanges, strainers, flexible connections, and expansion joints.